

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A system to monitor performance, comprising:
at least one probe to collect data and metrics related to performance of an associated domain, each at least one probe being embedded in the associated domain and including an associated control module containing user selectable parameters for controlling operation of each probe, the user selectable parameters comprising at least one of a type of data to be collected by the probe or a metric to be collected by the probe; and
at least one base station to receive the collected data or metric from associated ones of the at least one probe,
wherein each at least one probe may dynamically receive a new control module containing changes to the user selectable parameters and operate using the changes without affecting operation of the associated domain.
2. (Original) The system of claim 1, wherein the at least one probe comprises a system probe to gather at least one of operating system data, network data and performance data related to operation of an associated host processor.
3. (Original) The system of claim 2 wherein the system probe comprises a data structure to gather kernel data.
4. (Original) The system of claim 3, wherein the system probe comprises a data structure to gather data in a single process address by taking a snapshot of a kernel image at a selected time interval and to categorize the data.

5. (Original) The system of claim 2, wherein the system probe comprises a Java Native Interface to gather data.

6. (Original) The system of claim 2, wherein the system probe transmits data to an associated base station using Transmission Control Protocol.

7. (Original) The system of claim 2, wherein the at least one base station transmits signals to an associated system probe using User Datagram Protocol.

8. (Original) The system of claim 1, wherein the at least one probe comprises at least one application probe associated with an application.

9. (Original) The system of claim 8, wherein each application probe and an associated base station communicate using User Datagram Protocol.

10. (Original) The system of claim 8, further comprising a queue to store data collected by the at least one application probe until transferred to an associated base station.

11. (Original) The system of claim 10, wherein the queue comprises a circular queue of a predetermined capacity.

12. (Original) The system of claim 10, wherein the base station comprises a data structure to request transfer of any data stored in the queue and any data is transferred during time periods of internal host processor resource utilization that is below a predetermined level.

13. (Original) The system of claim 10, further comprising a Java Virtual Machine on which the queue resides.

14. (Original) The system of claim 10, wherein the stored data is transferred to the base station on a low priority thread relative to normal operations of a host processor.

15. (Original) The system of claim 1, wherein each probe is dynamically controlled by an associated base station using User Datagram Protocol.

16. (Original) The system of claim 1, wherein each probe is dynamically controlled to alter at least a type of performance data being collected and a frequency at which the data is being collected without affecting operation of the associated domain.

17. (Canceled)

18. (Previously Presented) The system of claim 1, wherein the base station comprises a copy of the control module associated with each probe served by the base station, wherein the control module and copy are updated each time a user selects a new parameter.

19. (Original) The system of claim 1, wherein the base station comprises a data structure to periodically ping each probe served by the base station to check a status of the probe and wherein the probe transmits its current control module information in response to the ping.

20. (Original) The system of claim 1, further comprising performance gathering code in a source code or a byte code associated with each domain to be monitored by an associated one of the at least one probe.

21. (Original) The system of claim 1, wherein the at least one probe comprises a network probe associated with each host processor to gather network data.

22. (Original) The system of claim 1, wherein the at least one probe comprises a data structure written in a Java® programming language.

23. (Original) The system of claim 1, wherein the base station comprises a data collector to collect data from the at least one probe.

24. (Original) The system of claim 23, further comprising at least one relational database to store data from the data collector.

25. (Original) The system of claim 24, wherein the collected data is stored in relation to a time interval in the at least one relational database.

26. (Original) The system of claim 1, further comprising:
a plurality of base stations; and
a negotiator to balance a quantity of probes served by each base station.

27. (Original) The system of claim 1, further comprising a plurality of base stations, wherein each base station comprises a probe table and wherein the probe table includes a list of probe identifications and an associated probe control module for each probe served by the base station.

28. (Original) The system of claim 1, further comprising:
a server to interface between a browser and the at least one base station; and
a data structure to run on the server to retrieve and display selected data in response to a query.

29. (Original) The system of claim 28, further comprising an interoperable naming service to register each base station and to assign a unique identifier

associated with each base station in response to the base station becoming active.

30. (Original) The system of claim 28, further comprising a probes application to run on the server to control operation of the at least one probe and to retrieve and display the selected data from collected data in response to the query.

31. (Original) The system of claim 30, wherein the probes application runs on a Java Server Page (JSP) engine.

32. (Original) The system of claim 28, further comprising a file to store predetermined queries to retrieve selected data from the collected data.

33. (Original) The system of claim 32, wherein the file comprises predetermined structured query language (SQL) queries to retrieve the selected data from a relational database.

34. (Original) The system of claim 32, wherein the file comprises predetermined mark-up language queries to retrieve the selected data from a relational database.

35. (Original) The system of claim 32, further comprising a data structure to substitute parameters entered by a user into a chosen query to retrieve the selected data.

36. (Original) The system of claim 32, further comprising a data structure to provide a link on a web page to a universal resource locator containing a path to a chosen query in the file in response to parameters selected or entered by a user on the web page.

37. (Original) The system of claim 1, further comprising a data structure to display collected data related to performance from one or more domains together.

38. (Original) The system of claim 1, further comprising a data structure to periodically retrieve updated data related to performance for one or more domains and to display the updated data.

39. (Original) The system of claim 38, further comprising an image streaming servlet to display the updated data.

40. (Previously Presented) The system of claim 1, further comprising a data structure to select the parameters for retrieving data by the at least one probe.

41. (Canceled)

42. (Original) The system of claim 1, wherein the at least one probe releases any resources utilizable by the probe in response to the probe being unable to associate with the at least one base station.

43. (Original) The system of claim 1, further comprising a plurality of probes each to collect data related to performance of a different domain within a distributed enterprise system.

44. (Currently Amended) A system to monitor performance, comprising:
at least one probe of a plurality of probes to collect data and
metrics related to performance from each of a plurality of domains, each at least one probe being embedded in an associated domain of the plurality of domains and including an associated control module containing user selectable parameters for controlling operation of each probe, the user selectable

parameters comprising at least one of a type of data to be collected by the probe or a metric to be collected by the probe;

at least one base station to receive the collected data or metric from associated ones of the plurality of probes and to control operation the probes associated with the base station;

at least one database to store the collected data; and

a server to interface between a browser and the at least one base station and to retrieve and display selected data from the at least one database in response to a query,

wherein each at least one probe may dynamically receive a new control module containing changes to the user selectable parameters from the server and operate using the changes without affecting operation of the associated domain.

45. (Original) The system of claim 44, further comprising a system probe associated with each host processor domain to gather at least one of operating system data, network data and performance data related to operation of the associated host processor.

46. (Original) The system of claim 45, wherein the system probe transmits data to an associated base station using Transmission Control Protocol.

47. (Original) The system of claim 45, wherein the at least one base station transmits signals to an associated system probe using User Datagram Protocol.

48. (Original) The system of claim 44, further comprising at least one application probe associated with each application of a plurality of applications.

49. (Original) The system of claim 48, wherein each application probe and an associated base station communicate using User Datagram Protocol.

50. (Original) The system of claim 48, further comprising a queue to store data collected by the at least one application probe until transferred to an associated base station.

51. (Original) The system of claim 44, wherein each probe is dynamically controlled to alter at least a type of performance data being collected and a frequency at which the data is being collected without affecting operation of the associated domain.

52. (Canceled)

53. (Original) The system of claim 44, wherein the at least one base station comprises a data collector to collect data from the at least one probe.

54. (Original) The system of claim 53, further comprising at least one relational database to store data from the data collector.

55. (Original) The system of claim 54, wherein the data is stored with an associated time stamp.

56. (Original) The system of claim 44, further comprising:
a plurality of base stations; and
a negotiator to balance a quantity of probes served by each base station.

57. (Original) The system of claim 44, further comprising a plurality of base stations, wherein each base station comprises a probe table and wherein

the probe table includes a list of probe identifications and an associated probe control module for each probe served by the base station.

58. (Original) The system of claim 44, further comprising:
a plurality of base stations; and
an interoperability naming service to register each base station and to assign a unique identifier associated with each base station in response to the base station becoming active to service probes.

59. (Original) The system of claim 44, further comprising a probes application to run on the server to control operation of each of the probes and to display at least some of the collected data.

60. (Original) The system of claim 44, further comprising a data structure to display at least some of the collected data for different domains together for a common time period.

61. (Original) The system of claim 44, further comprising a file to store predetermined queries to retrieve the selected data from the database for a predetermined time interval.

62. (Original) The system of claim 61, further comprising a data structure to substitute parameters entered by a user into a chosen query to retrieve the selected data.

63. (Original) The system of claim 62, further comprising a data structure to display the selected data over the predetermined time interval.

64. (Previously Presented) The system of claim 62, further comprising a data structure to periodically retrieve updated data related to the query and to display the update data.

65. (Previously Presented) The system of claim 44, wherein each of the probes self-destructs and releases any resources utilizable by the probe in response to the probe being unable to bootstrap to an appropriate base station for a configuration of the probe.

66. (Withdrawn) A method to monitor performance, comprising:
collecting data related to performance of different domains in a system;
correlating the data collected from each of the different domains over a common time period; and
displaying the data collected for selected ones of the different domains together in relation to the common time period.

67. (Withdrawn) The method of claim 65, further comprising instrumenting each different domain to be monitored.

68. (Withdrawn) The method of claim 66, wherein instrumenting comprises inserting performance gathering code into one of source code or byte code of each of the different domains to be monitored.

69. (Withdrawn) The method of claim 65, wherein collecting data comprises embedding at least one probe in each domain to be monitored.

70. (Withdrawn) The method of claim 68, further comprising embedding a system probe into each operating system to gather at least one of operating system data, network data and performance data related to operation of a host processor on which the operating system is operable.

71. (Withdrawn) The method of claim 69, wherein embedding the system probe comprises providing the system probe in a Java® programming language.

72. (Withdrawn) The method of claim 68, further comprising embedding at least one application probe in each application to gather data related to performance of the application.

73. (Withdrawn) The method of claim 71, wherein embedding at least one application probe comprises providing the at least one application probe in a Java® programming language.

74. (Withdrawn) The method of claim 65, further comprising starting an interoperable naming service on a server in response to accessing a data structure on the server to monitor performance of different domains in the system.

75. (Withdrawn) The method of claim 73, further comprising using a browser to access the data structure.

76. (Withdrawn) The method of claim 73, further comprising starting at least one base station in response to accessing the data structure.

77. (Withdrawn) The method of claim 75, further comprising:
registering each base station with the interoperable naming service;
and
connecting each base station to at least one database.

78. (Withdrawn) The method of claim 65, further comprising:
activating a system probe in response to starting an associated operating system on a host processor to collect at least one of operating system data, network data and performance data related to operation of the associated host processor; and

activating at least one application probe in response to starting an application associated with the at least one application probe to collect data related to operation of the application.

79. (Withdrawn) The method of claim 77, further comprising searching for a negotiator by each activated system probe and each activated application probe.

80. (Withdrawn) The method of claim 78, further comprising:
inactivating or self-destructing any probe in response to the probe not receiving a response from a negotiator; and
releasing any resources associated with a inactivated or self-destructed probe.

81. (Withdrawn) The method of claim 78, further comprising allocating a queue to store data received from each application probe.

82. (Withdrawn) The method of claim 80, wherein allocating the queue comprises providing a circular queue on a Java Virtual Machine.

83. (Withdrawn) The method of claim 81, wherein the Java Virtual Machine is operable on a host processor on which the application associated with the at least one application probe runs to collect data.

84. (Withdrawn) The method of claim 78, further comprising performing a handshaking operation between each available base station and each activated probe in response to the activated probe being associated with the base station.

85. (Withdrawn) The method of claim 78, further comprising storing a probe identifier and an control module for each activated probe served by any available base station.

86. (Withdrawn) The method of claim 84, further comprising:
transmitting a status request signal from the base station to each probe served by the base station at predetermined time intervals; and
transmitting a message from each probe corresponding to the probe's control module in response to receiving the status request signal.

87. (Withdrawn) The method of claim 77, further comprising operating each of the probes in a parallel mode on separate threads to gather performance data until operation is terminated.

88. (Withdrawn) The method of claim 77, wherein each system probe gathers data in a single process address by taking a snapshot of a kernel image at a selected time interval.

89. (Withdrawn) The method of claim 77, further comprising transmitting data from each system probe to an associated base station using Transmission Control Protocol.

90. (Withdrawn) The method of claim 77, further comprising transmitting signals from a base station to each associated system probe using User Datagram Protocol.

91. (Withdrawn) The method of claim 77, further comprising balancing a quantity of probes served between each of a plurality of base stations.

92. (Withdrawn) The method of claim 77, further comprising presenting a control page to a user to dynamically control operation each probe without affecting operation of an associated domain.

93. (Withdrawn) The method of claim 77, further comprising dynamically controlling a type of performance data collected and frequency of collecting the performance data by each probe without affecting operation of an associated domain.

94. (Withdrawn) The method of claim 65, further comprising accessing a probes application on a server to start the probes application to retrieve performance data of different domains in a system or network.

95. (Withdrawn) The method of claim 93, further comprising presenting at least one parameter selection page for a user to select parameters related to performance of the different domains.

96. (Withdrawn) The method of claim 94, wherein presenting the at least one parameter selection page comprises presenting a form for the user to enter or select a time interval over which performance data is desired.

97. (Withdrawn) The method of claim 94, wherein presenting the at least one parameter selection page comprises presenting a form for the user to enter or select at least one host or domain for which performance data is desired.

98. (Withdrawn) The method of claim 94, wherein presenting the at least one parameter selection page comprises presenting a form for the user to enter or select at least one class of performance data desired.

99. (Withdrawn) The method of claim 94, further comprising choosing an appropriate raw query in response to the selected parameters.

100. (Withdrawn) The method of claim 98, further comprising substituting the selected parameters into the raw query.

101. (Withdrawn) The method of claim 99, further comprising converting the raw query to a structured query language (SQL) query.

102. (Withdrawn) The method of claim 99, further comprising executing the query on at least one appropriate database to retrieve the performance data corresponding to the query.

103. (Withdrawn) The method of claim 101, further comprising presenting the results of the query.

104. (Withdrawn) The method of claim 102, wherein presenting the results comprises presenting performance data for multiple different domains together for the selected or entered time interval.

105. (Withdrawn) The method of claim 102, wherein presenting the results comprises presenting a graphical representation of the results.

106. (Withdrawn) The method of claim 104, further comprising updating the graphical representation at predetermined time intervals.

107. (Withdrawn) The method of claim 105, wherein updating the graphical representation comprises re-executing the query and re-drawing the graphical representation in response to the new results.

108. (Withdrawn) A method to monitor performance, comprising:
accessing a probes application on a server via a browser to
activate the probes application;
presenting at least one parameter selection page for a user to
select parameters related to performance data in response to accessing the
probes application; and

retrieving performance data in response to the selected parameters.

109. (Withdrawn) The method of claim 107, further comprising choosing an appropriate query in response to the selected parameters.

110. (Withdrawn) The method of claim 108, further comprising executing the query on at least one database to retrieve the performance data corresponding to the query.

111. (Withdrawn) The method of claim 109, further comprising presenting the performance data.

112. (Withdrawn) The method of claim 110, further comprising:
updating the performance data at predetermined time intervals by re-executing the query; and
presenting the new performance data.

113. (Withdrawn) A computer-readable medium having computer-executable instructions for performing a method, comprising:
collecting performance data for different domains in a system;
correlating the data collected from each of the different domains over a common time period; and
displaying the data collected for selected ones of the different domains together in relation to the common time period.

114. (Withdrawn) The computer-readable medium having computer-executable instructions for performing the method of claim 112, further comprising:
activating a system probe in response to starting an associated operating system on a host processor to collect at least one of operating system

data, network data and performance data related to operation of the associated host processor; and

activating at least one application probe in response to starting an application associated with the at least one application probe to collect data related to operation of the application.

115. (Withdrawn) The computer-readable medium having computer-executable instructions for performing the method of claim 113, further comprising dynamically controlling a type of performance data collected and frequency of collecting the performance data by each probe without affecting operation of the associated domain.

116. (Withdrawn) The computer-readable medium having computer-executable instructions for performing the method of claim 112, further comprising choosing an appropriate query in response to parameters selected by a user to retrieve performance data from a database.

117. (Withdrawn) The computer-readable medium having computer-executable instructions for performing the method of claim 115, further comprising:

updating the performance data at predetermined time intervals by re-executing the query; and
presenting the new performance data retrieved.

118. (Withdrawn) A method of making a system to monitor performance, comprising:

embedding a plurality of probes, at least one probe being embedded with each of a plurality of domains to collect performance data from the domain; and

providing at least one base station to receive data from associated ones of the plurality of embedded probes.

119. (Withdrawn) The method of claim 117, wherein embedding the plurality of probes comprises embedding a system probe in each host processor domain to gather at least one of operating system data, network data and performance data related to operation of the associated host processor.

120. (Withdrawn) The method of claim 117, wherein embedding the plurality of probes comprises embedding at least one application probe in each application domain to collect performance data related to operation of the application.

121. (Withdrawn) The method of claim 117, further comprising providing at least one database to store the collected performance data.

122. (Withdrawn) The method of claim 120, further comprising providing a server to interface between a browser and the at least one base station and to retrieve and display selected data from the at least one database in response to a query.